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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,210	03/27/2001	Shlomo Margel	LUZZ-051CIP	7952

530 7590 12/03/2003

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EXAMINER

SHARAREH, SHAHNAM J

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 12/03/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/701,210

Applicant(s)

MARGEL ET AL.

Examiner

Shahnam Sharareh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 33-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) ~~33-46~~ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Amendment filed on August 29, 2003 has been entered. Applicant has made an election without traverse of Group I in Paper No. 8. Claims 33-46 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8. This application contains claims 33-46 drawn to an invention nonelected with traverse in Paper No. 8. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
2. Any rejection that is not addressed in this Office Action is considered obviated in view of the Amendment.

### ***Claim Rejections - 35 USC, 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable Siiman et al US Patent 5,248,772, Ugelstad et al US Patent 4,774,265, or Margel et al US Patent 4,783,336, in view of Remington: the Science and Practice of Pharmacy 1995 p. 441-443, 583, Callewaert et al, p. 302-303 (Basic Chemistry General, Organic, Biological, Worth Publishers, Inc. 1980) and Vasconelos et al European Polymer Journal 1997 33 (5): 631-639).
4. Applicant's arguments with respect to this rejection have been fully considered but are not found perssuvie. Applicant argues that steps (d) through (f) are necessary

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for successive repetition as many times as is required in order to obtain monodispersed nanoparticles coated with magnetic metal oxides. (see Arguments at page 13, 3<sup>rd</sup> para.).

5. In response Examiner states that the scope of pending claims does not necessary require a repeating of steps (d)-(f), rather it calls for such repetition, "as required to obtain monodispersed nanoparicles coated with magnetic metal oxide." Such requirement can be well achieved by merely performing steps (a)-(d), once, as taught by Siiman, Ugelstad, or Margel. Applicant appears to ignore that repeting steps (a)-(d) in the instant claims appears to be discretionary and subsequent to prepration of monodispersed nanoparticles. All cited primary references are directed to preparing uniform concentratrions of nanoparticles coated with iron oxides.

6. Further, the secondary references provide the discretionary process of titraions based on the degree of complexation required by the ordinary skill in the art specially assessing the affinity of various metals such as copper to natural to synthetic polymers for biological use. Therefore, the combined teachings of the references meet the limitations of the instant claims for the reasons of record.

#### ***New Grounds of Rejection***

7. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elaissari et al US Patent 6,133,047 in view of Margel et al US Patent 4,783,336 .

8. Elaissari teaches methods of preparing monodispersed particles of superparamagnetic compounds comprising the steps of preparing an aqueous solution of a first and second polymers, adding an anionic ferrofluid comprising iron oxides

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solution which is stable between pH 6-8, causing the polymer and the iron oxide to interact electorstatically. (See abstract, col 8-9, specifically examples 2-3). Elaissari fails to teach that the interaction must occur in pH above 7.

9. Margel provides the use of aqueous dispersion of iron oxide, in presence of an oxidizing agent at pH values of above 7 to form magnetic particles of uniform size. Margel further provides for the suitable ratios of the iron oxidation as set forth in the instant claim 11.

10. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of invention to perform Elaissari's methodology at suitable pH's above 7, because as provided by Elaissari, the ferrofluid only stays stable in a specific pH range of 6-8. The ordinary skill in the art would have had a reasonable expectation of success to employ pH of above 7 during this interaction, because as taught by Margel such pH would lead to optimal interaction between the polymeric solution and iron oxide dispersion.

### ***Conclusion***

11. No claims are allowed. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahnam Sharareh whose telephone number is 703-306-5400. The examiner can normally be reached on 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, PhD can be reached on 703-308-1877. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1123.

SS

  
RUSSELL TRAVERS  
PRIMARY EXAMINER  
GROUP 1200